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DATE: Friday, April 08, 2005

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		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L6	6797010	1
		<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L5	L2 and thermostabl\$5	20
<input type="checkbox"/>	L4	L2 and humicola	98
<input type="checkbox"/>	L2	L1 and (sequence or gene)	160
<input type="checkbox"/>	L1	cutinase with (variant or muta\$4 or substitut\$3)	167

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Search Results - Record(s) 1 through 10 of 20 returned.

☐ 1. Document ID: US 20040226672 A1

Using default format because multiple data bases are involved.

L5: Entry 1 of 20

File: PGPB

Nov 18, 2004

PGPUB-DOCUMENT-NUMBER: 20040226672

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040226672 A1

TITLE: Enzymatic hydrolysis of a polymer comprising vinyl acetate monomer

PUBLICATION-DATE: November 18, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Borch, Kim	Birkerod	TN	DK	
Lund, Henrik	Skodsborg		DK	
Sharyo, Masaki	Matsudo-shi		JP	
Sakaguchi, Hiromichi	Chiba city		JP	
Pedersen, Hanne Host	Lyngby		DK	
Fitzhenry, James William	Memphis		US	

US-CL-CURRENT: 162/72; 162/147, 435/277, 435/278

Full	Title	Citation	Front	Review	Classification	Data	Reference	Sequences	Attachments	Claims	KIMC	Draw D
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☐ 2. Document ID: US 20040180340 A1

L5: Entry 2 of 20

File: PGPB

Sep 16, 2004

PGPUB-DOCUMENT-NUMBER: 20040180340

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040180340 A1

TITLE: Method for creating polynucleotide and polypeptide sequences

PUBLICATION-DATE: September 16, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Arnold, Frances	Pasadena	CA	US	
Shao, Zhixin	Penzberg	CA	DE	

Volkov, Alexander

South Pasadena

US

US-CL-CURRENT: 435/6; 435/91.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	WWW	Draw D
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☐ 3. Document ID: US 20040048351 A1

L5: Entry 3 of 20

File: PGPB

Mar 11, 2004

PGPUB-DOCUMENT-NUMBER: 20040048351

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040048351 A1

TITLE: Alpha-amylase mutants

PUBLICATION-DATE: March 11, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Svendsen, Allan	Birkerod		DK	
Borchert, Torben Vedel	Jyllinge		DK	
Bisgard-Frantzen, Henrik	Bagsvaerd		DK	

US-CL-CURRENT: 435/204; 510/226, 510/320

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	WWW	Draw D
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☐ 4. Document ID: US 20030199068 A1

L5: Entry 4 of 20

File: PGPB

Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030199068

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030199068 A1

TITLE: High throughput mutagenesis screening method

PUBLICATION-DATE: October 23, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bott, Richard R.	Burlingame	CA	US	
Kellis, James T. JR.	Portola Valley	CA	US	
Morrison, Thomas B.	Winchester	MA	US	

US-CL-CURRENT: 435/196; 435/252.3, 435/320.1, 435/69.1, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	WWW	Draw D
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☐ 5. Document ID: US 20030199038 A1

L5: Entry 5 of 20

File: PGPB

Oct 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030199038

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030199038 A1

TITLE: Method for preparing polypeptide variants

PUBLICATION-DATE: October 23, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Brody, Howard	Davis	CA	US	
Otani, Suzanne M.	Elk Grove	CA	US	
Cherry, Joel R.	Davis	CA	US	

US-CL-CURRENT: [435/69.1](#); [435/189](#), [435/193](#), [435/196](#), [435/232](#), [435/233](#), [435/254.3](#),  
[435/484](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Draw Ds
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☐ 6. Document ID: US 20030171543 A1

L5: Entry 6 of 20

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171543

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030171543 A1

TITLE: High throughput mutagenesis screening method

PUBLICATION-DATE: September 11, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bott, Richard R.	Burlingame	CA	US	
Kellis, James T. JR.	Portola Valley	CA	US	
Morrison, Thomas B.	Winchester	MA	US	

US-CL-CURRENT: [530/350](#); [435/320.1](#), [435/325](#), [435/455](#), [435/69.1](#), [435/7.1](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Draw Ds
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☐ 7. Document ID: US 20030171236 A1

L5: Entry 7 of 20

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171236

PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030171236 A1

TITLE: ALPHA-AMYLASE MUTANTS

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Svendsen, Allan	Birkerod		DK	
Borchert, Torben Vedel	Jyllinge		DK	
Bisgard-Frantzen, Henrik	Bagsvaerd		DK	

US-CL-CURRENT: 510/305; 435/202, 510/226

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KNOW	Draw D
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☐ 8. Document ID: US 20030170861 A1

L5: Entry 8 of 20

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030170861  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030170861 A1

TITLE: Cellobiohydrolase I gene and improved variants

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Adney, William S.	Golden	CO	US	
Decker, Stephen R.	Berthoud	CO	US	
McCarter, Suzanne	San Carlos	CA	US	
Baker, John O.	Golden	CO	US	
Nieves, Rafael	Lakewood	CO	US	
Himmel, Michael E.	Littleton	CO	US	
Vinzant, Todd B.	Golden	CO	US	

US-CL-CURRENT: 435/209; 435/320.1, 435/325, 435/69.1, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KNOW	Draw D
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☐ 9. Document ID: US 20030091691 A1

L5: Entry 9 of 20

File: PGPB

May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030091691  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030091691 A1

TITLE: Stepping process

PUBLICATION-DATE: May 15, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Olsen, Hans Sejr	Holte		DK	
Nielsen, Bjarne Ronfeldt	Virum		DK	

US-CL-CURRENT: 426/49

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 10. Document ID: US 20030051836 A1

L5: Entry 10 of 20

File: PGPB

Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030051836

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030051836 A1

TITLE: Enzymatic hydrolysis of a polymer comprising vinyl acetate monomer

PUBLICATION-DATE: March 20, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Borch, Kim	Birkerod	TN	DK	
Lund, Henrik	Skodsborg		DK	
Sharyo, Masaki	Matsudo-shi		JP	
Sakaguchi, Hiromichi	Chiba city		JP	
Pedersen, Hanne Host	Lyngby		DK	
Fitzhenry, James William	Memphis		US	

US-CL-CURRENT: 162/72; 162/100, 162/189

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 11. Document ID: US 20020137661 A1

Using default format because multiple data bases are involved.

L5: Entry 11 of 20

File: PGPB

Sep 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020137661

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020137661 A1

TITLE: METHOD FOR CREATING POLYNUCLEOTIDE AND POLYPEPTIDE SEQUENCES

PUBLICATION-DATE: September 26, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
ARNOLD, FRANCES	PASADENA	CA	US	
SHAO, ZHIXIN	PENZBERG	DE	US	
VOLKO, ALEXANDER	SOUTH PASADENA	CA	US	

US-CL-CURRENT: 514/1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw De
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☐ 12. Document ID: US 20020123445 A1

L5: Entry 12 of 20

File: PGPB

Sep 5, 2002

PGPUB-DOCUMENT-NUMBER: 20020123445

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020123445 A1

TITLE: Stability enhancing formulation components, compositions and laundry methods employing same

PUBLICATION-DATE: September 5, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dykstra, Robert Richard	Cleves	OH	US	
Gustwiller, Marc Eric	Cincinnati	OH	US	
Howard, Tonya Ann	South Lebanon	OH	US	

US-CL-CURRENT: [510/302](#); [510/309](#), [510/375](#), [510/499](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Da
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☐ 13. Document ID: US 20020123123 A1

L5: Entry 13 of 20

File: PGPB

Sep 5, 2002

PGPUB-DOCUMENT-NUMBER: 20020123123

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020123123 A1

TITLE: Cutinase variants

PUBLICATION-DATE: September 5, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Svendsen, Allan	Horsholm		DK	
Glad, Sanne O. Schroder	Ballerup		DK	
Fukuyama, Shiro	Chiba		JP	
Matsui, Tomoko	Chiba		JP	

US-CL-CURRENT: [435/200](#); [435/252.3](#), [435/254.2](#), [435/320.1](#), [435/69.1](#), [536/23.2](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Da
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☐ 14. Document ID: US 6815190 B1

L5: Entry 14 of 20

File: USPT

Nov 9, 2004

US-PAT-NO: 6815190

DOCUMENT-IDENTIFIER: US 6815190 B1

TITLE: Cutinase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Da
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☐ 15. Document ID: US 6642044 B2

L5: Entry 15 of 20

File: USPT

Nov 4, 2003

US-PAT-NO: 6642044

DOCUMENT-IDENTIFIER: US 6642044 B2

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Da
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☐ 16. Document ID: US 6537746 B2

L5: Entry 16 of 20

File: USPT

Mar 25, 2003

US-PAT-NO: 6537746

DOCUMENT-IDENTIFIER: US 6537746 B2

**\*\* See image for Certificate of Correction \*\***TITLE: Method for creating polynucleotide and polypeptide sequences

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 17. Document ID: US 6436888 B1

L5: Entry 17 of 20

File: USPT

Aug 20, 2002

US-PAT-NO: 6436888

DOCUMENT-IDENTIFIER: US 6436888 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 18. Document ID: US 6143708 A

L5: Entry 18 of 20

File: USPT

Nov 7, 2000

US-PAT-NO: 6143708

DOCUMENT-IDENTIFIER: US 6143708 A

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 19. Document ID: MX 2002011911 A1, WO 200192502 A1, AU 200160085 A, EP 1290150 A1, CN 1426463 A, JP 2003534797 W

L5: Entry 19 of 20

File: DWPI

May 1, 2003

DERWENT-ACC-NO: 2002-216714

DERWENT-WEEK: 200415

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TITLE: Variant of parent fungal cutinase for enzymatic hydrolysis of cyclic oligomers of poly(ethylene terephthalate), comprises a substitution of amino acid residues corresponding to positions of Humicola insolens cutinase

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 20. Document ID: US 6815190 B1, WO 200034450 A1, AU 200015038 A, BR 9915832 A, EP 1137761 A1, KR 2001081059 A, CN 1329664 A, JP 2003520016 W, MX 2001005422 A1

L5: Entry 20 of 20

File: DWPI

Nov 9, 2004

DERWENT-ACC-NO: 2000-482424

DERWENT-WEEK: 200474

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TITLE: Thermostable variant of parent fungal cutinase useful for dyeing polyester yarn or fabric, comprises substitution of amino acid residues at predetermined positions from the N-terminal amino acid

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KBIC	Draw D
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US006797010B2

(12) **United States Patent**  
**Uyama et al.**

(10) **Patent No.:** **US 6,797,010 B2**  
(45) **Date of Patent:** **Sep. 28, 2004**

(54) **REDEPOSITION OR BACKSTAIN  
INHIBITION DURING STONEWASHING  
PROCESS**

(75) **Inventors:** Naoto Uyama, Chiba-prefecture (JP);  
Kosaku Daimon, Chiba-ken (JP)

(73) **Assignee:** Novozymes A/S, Bagsvaerd (DK)

(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 126 days.

(21) **Appl. No.:** 09/924,379

(22) **Filed:** Aug. 8, 2001

(65) **Prior Publication Data**

US 2002/0066144 A1 Jun. 6, 2002

#### **Related U.S. Application Data**

(63) Continuation of application No. PCT/DK01/00384, filed on  
Jun. 5, 2001.

(60) Provisional application No. 60/211,004, filed on Jun. 12,  
2000, provisional application No. 60/244,351, filed on Oct.  
30, 2000, provisional application No. 60/253,798, filed on  
Nov. 29, 2000, and provisional application No. 60/265,473,  
filed on Jan. 31, 2001.

(30) **Foreign Application Priority Data**

Jun. 2, 2000	(DK)	2000 00861
Oct. 23, 2000	(DK)	2000 01577
Nov. 24, 2000	(DK)	2000 01772
Jan. 19, 2001	(DK)	2001 00100

(51) **Int. Cl.<sup>7</sup>** ..... D06M 0/00

(52) **U.S. Cl.** ..... 8/115.51; 8/137; 510/320;  
510/321; 510/392; 510/393

(58) **Field of Search** ..... 8/115.51, 137;  
510/320, 321, 392, 393

(56) **References Cited**

#### **U.S. PATENT DOCUMENTS**

5,837,010 A \* 11/1998 Baeck et al. .... 8/137  
5,912,157 A 6/1999 von der Osten

#### **FOREIGN PATENT DOCUMENTS**

WO	WO 93/25655	12/1993
WO	WO 94/07983	4/1994
WO	WO 94/29426	12/1994
WO	WO 97/04160	2/1997
WO	WO 99/51808	10/1999

\* cited by examiner

*Primary Examiner*—Charles Boyer

*Assistant Examiner*—Derrick G. Hamlin

(74) *Attorney, Agent, or Firm*—Elias J. Lambiris

(57) **ABSTRACT**

The present invention relates to the inhibition of backstain-  
ing or redeposition during the stonewashing process by  
applying a lipolytic enzyme, preferably cutinase, thereby  
avoiding that the blue color redeposits on the fabric or  
garment.

**8 Claims, No Drawings**

SPNT

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(ROSPATENT) added to list of core patent offices covered  
NEWS 4 FEB 28 PATDPAFULL - New display fields provide for legal status  
data from INPADOC  
NEWS 5 FEB 28 BABS - Current-awareness alerts (SDIs) available  
NEWS 6 FEB 28 MEDLINE/LMEDLINE reloaded  
NEWS 7 MAR 02 GBFULL: New full-text patent database on STN  
NEWS 8 MAR 03 REGISTRY/ZREGISTRY - Sequence annotations enhanced  
NEWS 9 MAR 03 MEDLINE file segment of TOXCENTER reloaded  
NEWS 10 MAR 22 KOREAPAT now updated monthly; patent information enhanced  
NEWS 11 MAR 22 Original IDE display format returns to REGISTRY/ZREGISTRY  
NEWS 12 MAR 22 PATDPASPC - New patent database available  
NEWS 13 MAR 22 REGISTRY/ZREGISTRY enhanced with experimental property tags  
NEWS 14 APR 04 EPFULL enhanced with additional patent information and new  
fields  
NEWS 15 APR 04 EMBASE - Database reloaded and enhanced  
  
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L1 242 CUTINASE (5A) (VARIANT OR MUTA? OR SUBSTITUT?)

=> s l1 and (sequence or gene)  
6 FILES SEARCHED...  
L2 138 L1 AND (SEQUENCE OR GENE)

=> dup rem l2  
PROCESSING COMPLETED FOR L2  
L3 59 DUP REM L2 (79 DUPLICATES REMOVED)

=> d 1-10

L3 ANSWER 1 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:996321 HCAPLUS  
DN 141:421730

TI \*\*\*Sequences\*\*\* of variant subtilisin enzymes (subtilases) having an  
improved wash performance on egg stains  
IN Minning, Stefan; Knoetzel, Juergen Carsten Franz; Sorensen, Niels Henrik;  
Ness, Jon E.; Welch, Mark D.; Giver, Lorraine J.; Cherry, Joel; Vedel,  
Borchert Torben; Minshull, Jeremy S.  
PA Novozymes A/S, Den.; Maxigen, Inc.  
SO PCT Int. Appl., 87 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004099401	A1	20041118	WO 2004-DK312	20040506
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI DK 2003-690 A 20030507  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
DUPLICATE 1  
AN 2004-01674 BIOTECHDS  
TI New \*\*\*cutinase\*\*\* \*\*\*variants\*\*\* of Pseudomonas mendocina  
\*\*\*cutinase\*\*\* useful for facilitating the identification of trends and  
enabling construction of new molecular libraries and graded  
identification of mutation sites for further improvement;  
bacterium enzyme production and site saturation mutagenesis for  
molecular library construction  
AU BOTT R R; KELLIS J T; MORRISON T B  
PA GENENCOR INT INC  
PI WO 2003076580 18 Sep 2003  
AI WO 2003-US6908 5 Mar 2003  
PRAI US 2002-403921 15 Aug 2002; US 2002-91912 5 Mar 2002  
DT Patent  
LA English  
OS WPI: 2003-902771 [82]

L3 ANSWER 3 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
DUPLICATE 2  
AN 2004-07741 BIOTECHDS  
TI Avirulent Mycobacterium marinum and Mycobacterium tuberculosis bacteria,  
useful as vaccines for eliciting an immune response in a patient, or for  
treating and preventing mycobacterial infections;  
for use in recombinant vaccine preparation against mycobacterium  
infection, prevention and therapy  
AU TRUCKSIS M  
PA US DEPT VETERANS AFFAIRS; UNIV MARYLAND BALTIMORE  
PI US 2003236393 25 Dec 2003  
AI US 2003-394575 24 Mar 2003  
PRAI US 2003-394575 24 Mar 2003; US 2002-366262 22 Mar 2002  
DT Patent  
LA English  
OS WPI: 2004-070621 [07]

L3 ANSWER 4 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:892912 HCAPLUS  
DN 139:359866  
TI Bacillus licheniformis mutants with improved production of heterologous  
proteins by reducing the amount of contaminant secreted native  
polypeptide(s)  
IN Andersen, Jens Tonne; Jorgensen, Steen Troels; Rasmussen, Michael  
Dolbjerg; Olsen, Peter Bjarke; Clausen, Ib Groth  
PA Novozymes A/S, Den.  
SO PCT Int. Appl., 422 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003093453	A2	20031113	WO 2003-DK198	20030325
	WO 2003093453	A3	20040513		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1497429	A2	20050119	EP 2003-709679	20030325
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRAI	DK 2002-534	A	20020410		

L3 ANSWER 5 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:58203 HCAPLUS

DN 138:133154

TI Subtilase variants with improved stability, catalytic activity or wash performance for use in detergents

IN Fano, Tina Sejersgard; Von der Osten, Claus; Krueger, Malene Kappen; Norregaard-Madsen, Mads

PA Novozymes A/S, Den.

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003006602	A2	20030123	WO 2002-DK485	20020711
	WO 2003006602	A3	20031106		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1409659	A2	20040421	EP 2002-745188	20020711
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	BR 2002010837	A	20040713	BR 2002-10837	20020711
	JP 2004537994	T2	20041224	JP 2003-512361	20020711
	ZA 2003009666	A	20040803	ZA 2003-9666	20031212
	US 2004197894	A1	20041007	US 2003-481723	20031222
PRAI	DK 2001-1090	A	20010712		
	DK 2001-90	A	20010712		
	WO 2002-DK485	W	20020711		

L3 ANSWER 6 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:836519 HCAPLUS

DN 139:339298

TI Subtilase variants having an improved wash performance on egg stains

IN Fano, Tina Sejersgard; Mikkelsen, Frank

PA Den.

SO U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. Ser. No. 574417, abandoned.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003199077	A1	20031023	US 2000-736116	20001213
	US 6727085	B2	20040427		
PRAI	DK 1999-1792	A	19991215		
	US 2000-487953	B2	20000119		
	DK 2000-708	A	20000501		
	US 2000-574417	B2	20000519		
	DK 2000-1527	A	20001013		
	US 2000-241207P	P	20001017		

L3 ANSWER 7 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:796297 HCAPLUS

DN 139:319339

TI Subtilisins with active site loop c mutations and detergent compositions with improved wash performance

IN Hansen, Peter Kamp; Bauditz, Peter; Mikkelsen, Frank; Andersen, Kim Vilbour; Andersen, Carsten; Norregaard-Madsen, Mads

PA Novozymes A/S, Den.

SO U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U.S. Ser. No. 574,463,  
abandoned.  
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 20

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003191038	A1	20031009	US 2002-243576	20020913
	US 6780629	B2	20040824		
	US 6605458	B1	20030812	US 1998-196281	19981119
	US 2003180933	A1	20030925	US 2003-403105	20030331
PRAI	DK 1997-1332	A	19971121		
	US 1998-196281	A2	19981119		
	DK 1999-704	A	19990520		
	DK 1999-705	A	19990520		
	DK 1999-707	A	19990520		
	DK 1999-708	A	19990520		
	DK 1999-709	A	19990520		
	DK 1999-710	A	19990520		
	DK 1999-711	A	19990520		
	DK 1999-712	A	19990520		
	US 2000-573298	A2	20000518		
	US 2000-573299	A2	20000518		
	US 2000-573652	B2	20000518		
	US 2000-573932	A2	20000518		
	US 2000-574033	A2	20000518		
	US 2000-574143	A2	20000518		
	US 2000-574463	B2	20000518		
	US 2000-574468	A2	20000518		

L3 ANSWER 8 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:717789 HCAPLUS

DN 139:225467

TI Methods for generating libraries using high throughput site-saturation  
mutagenesis

IN Bott, Richard R.; Kellis, James T.; Morrison, Thomas B.

PA USA

SO U.S. Pat. Appl. Publ., 21 pp.  
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003171543	A1	20030911	US 2002-92227	20020305
	WO 2003076580	A2	20030918	WO 2003-US6908	20030305
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2002-362372P	P	20020305		
	US 2002-91912	A	20020305		
	US 2002-92227	A	20020305		
	US 2002-403921P	P	20020815		

L3 ANSWER 9 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:717737 HCAPLUS

DN 139:242282

TI Subtilisin insertion mutants for use in detergent compositions with  
improved wash performance

IN Hansen, Peter Kamp; Bauditz, Peter; Mikkelsen, Frank; Andersen, Kim  
Vilbour; Andersen, Carsten; Norregaard-Madsen, Mads

PA Novozymes A/S, Den.

SO U.S. Pat. Appl. Publ., 72 pp., Cont.-in-part of U.S. Ser. No. 573,301.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 20

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 2003171235	A1	20030911	US 2002-242549	20020912
	US 6773907	B2	20040810		
	US 6605458	B1	20030812	US 1998-196281	19981119
	US 2003180933	A1	20030925	US 2003-403105	20030331
PRAI	DK 1997-1332	A	19971121		
	US 1998-196281	A2	19981119		
	DK 1998-1670	A	19981218		
	DK 1998-1671	A	19981218		
	DK 1998-1672	A	19981218		
	DK 1998-1673	A	19981218		
	DK 1998-1674	A	19981218		
	DK 1998-1675	A	19981218		
	DK 1998-1677	A	19981218		
	DK 1999-706	A	19981218		
	US 1999-229720	B1	19990113		
	DK 1998-1676	A	19990520		
	DK 1999-701	A	19990520		
	US 1999-466385	A2	19991220		
	US 1999-466943	A2	19991220		
	US 1999-468262	A2	19991220		
	US 1999-468266	A2	19991220		
	US 1999-468267	A2	19991220		
	US 1999-468486	A2	19991220		
	US 1999-468487	A2	19991220		
	US 1999-468488	A2	19991220		
	US 2000-573301	A2	20000518		

L3 ANSWER 10 OF 59 MEDLINE on STN

DUPLICATE 3

AN 2003268939 MEDLINE

DN PubMed ID: 12795380

TI Molecular evidence that the extracellular cutinase Pbc1 is required for pathogenicity of *Pyrenopeziza brassicae* on oilseed rape.

AU Li Donghui; Ashby Alison M; Johnstone Keith

CS Department of Plant Sciences, University of Cambridge, Downing Street, Cambridge CB2 3EA, UK.

SO Molecular plant-microbe interactions : MPMI, (2003 Jun) 16 (6) 545-52.

Journal code: 9107902. ISSN: 0894-0282.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200309

ED Entered STN: 20030611

Last Updated on STN: 20030928

Entered Medline: 20030926

=> d 11-20

L3 ANSWER 11 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:485779 HCAPLUS

DN 140:265145

TI Eubacteria containing RNA polymerase RpoB substitution mutants and their use in enhancing product yield

CS Novozymes A/S, Den.

SO IP.com Journal (2003), 3(4), 16 (No. IPCOM000011583D), 6 Mar 2003

CODEN: IJPOBX; ISSN: 1533-0001

PB IP.com, Inc.

DT Journal; Patent

LA English

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	IP 11583D		20030306		
PRAI	IP 2003-11583D	20030306			

L3 ANSWER 12 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2002:293829 HCAPLUS  
 DN 136:321289  
 TI Subtilase variants with decreased sensitivity to trypsin inhibitors  
 present in egg stains  
 IN Norregaard-Madsen, Mads; Larsen, Line Bloch; Hansen, Peter Kamp  
 PA Novozymes A/S, Den.  
 SO PCT Int. Appl., 93 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002031133	A1	20020418	WO 2001-DK667	20011012
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2424434	AA	20020418	CA 2001-2424434	20011012
	AU 2002010379	A5	20020422	AU 2002-10379	20011012
	US 2002155575	A1	20021024	US 2001-976414	20011012
	EP 1326966	A1	20030716	EP 2001-978206	20011012
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004511228	T2	20040415	JP 2002-534502	20011012
	US 2004248273	A1	20041209	US 2004-884325	20040702
PRAI	DK 2000-1528	A	20001013		
	US 2000-241201P	P	20001017		
	US 2001-976414	A1	20011012		
	WO 2001-DK667	W	20011012		

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 13 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2002:72246 HCAPLUS  
 DN 136:130769  
 TI Recombinant Bacillus pectate lyases with improved thermostability and  
 their use in detergents  
 IN Schuelein, Martin; Glad, Sanne O. Schroder; Andersen, Carsten; Frandsen,  
 Torben Peter  
 PA Novozymes A/S, Den.  
 SO PCT Int. Appl., 158 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002006442	A2	20020124	WO 2001-DK505	20010717
	WO 2002006442	A3	20020926		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2001081736	A5	20020130	AU 2001-81736	20010717
	EP 1305408	A2	20030502	EP 2001-960180	20010717
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2003017575	A1	20030123	US 2001-910505	20010719
	US 6607902	B2	20030819		

	US 2003175940	A1	20030918	US 2003-403192	20030331
	US 6808915	B2	20041026		
PRAI	DK 2000-1117	A	20000719		
	DK 2001-705	A	20010504		
	DK 2001-734	A	20010510		
	US 2001-290724P	P	20010514		
	WO 2001-DK505	W	20010717		
	US 2001-910505	A3	20010719		

L3 ANSWER 14 OF 59 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2002:570980 BIOSIS

DN PREV200200570980

TI Identification of a cutinase \*\*\*gene\*\*\* in Mycobacterium marinum linked to virulence.

AU Ruley, K. M. [Reprint author]; Trucksis, M. [Reprint author]

CS University of Maryland, Baltimore, MD, USA

SO Abstracts of the General Meeting of the American Society for Microbiology, (2002) Vol. 102, pp. 58. print.  
Meeting Info.: 102nd General Meeting of the American Society for Microbiology. Salt Lake City, UT, USA. May 19-23, 2002. American Society for Microbiology.  
ISSN: 1060-2011.

DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 7 Nov 2002  
Last Updated on STN: 7 Nov 2002

L3 ANSWER 15 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2002:978831 SCISEARCH

GA The Genuine Article (R) Number: 619QG

TI Studies on ferulic acid esterase activity in fungal lipases and cutinases

AU Andersen A (Reprint); Svendsen A; Vind J; Lassen S F; Hjort C; Borch K; Patkar S A

CS Novozymes AS, Dept Prot Chem, DK-2880 Bagsvaerd, Denmark

CYA Denmark

SO COLLOIDS AND SURFACES B-BIOINTERFACES, (SEP 2002) Vol. 26, No. 1-2, pp. 47-55.  
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.  
ISSN: 0927-7765.

DT Article; Journal

LA English

REC Reference Count: 38  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 16 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4

AN 2001:886490 HCAPLUS

DN 136:33925

TI \*\*\*Cutinase\*\*\* \*\*\*variants\*\*\* with improved thermostability and their use in textile treatments

IN Svendsen, Allan; Glad, Sanne O. S.; Fukuyama, Shiro; Matsui, Tomoko

PA Novozymes A/s, Den.

SO PCT Int. Appl., 41 pp.  
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001092502	A1	20011206	WO 2001-DK350	20010522
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 CA 2408406 AA 20011206 CA 2001-2408406 20010522  
 EP 1290150 A1 20030312 EP 2001-933646 20010522  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2003534797 T2 20031125 JP 2002-500694 20010522  
 PRAI DK 2000-861 A 20000602  
 DK 2000-1577 A 20001023  
 DK 2000-1772 A 20001124  
 DK 2001-100 A 20010119  
 WO 2001-DK350 W 20010522  
 RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2001:798405 HCAPLUS  
 DN 135:340845  
 TI Enzyme variants with decreased immunogenicity having one or more D-amino  
 acid substitutions and their use in cleaning and personal care  
 compositions  
 IN Weisgerber, David John  
 PA Procter + Gamble Company, USA  
 SO PCT Int. Appl., 41 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001081556	A2	20011101	WO 2001-US13061	20010423
	WO 2001081556	A3	20020718		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2003170846	A1	20030911	US 2001-824607	20010402
	EP 1276871	A2	20030122	EP 2001-928770	20010423
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003530881	T2	20031021	JP 2001-578627	20010423
PRAI	US 2000-199415P	P	20000424		
	WO 2001-US13061	W	20010423		

L3 ANSWER 18 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2001:453240 HCAPLUS  
 DN 135:62103  
 TI Subtilase variants having an improved wash performance on egg stains  
 IN Fano, Tina Sejersgaard; Mikkelsen, Frank F.  
 PA Novozymes A/S, Den.  
 SO PCT Int. Appl., 137 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001044452	A1	20010621	WO 2000-DK660	20001201
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 CA 2394971 AA 20010621 CA 2000-2394971 20001201  
 EP 1244779 A1 20021002 EP 2000-979461 20001201  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2003516751 T2 20030520 JP 2001-545529 20001201  
 PRAI DK 1999-1792 A 19991215  
 DK 2000-708 A 20000501  
 DK 2000-1527 A 20001013  
 WO 2000-DK660 W 20001201  
 RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 19 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
 DUPLICATE 5  
 AN 2000-12956 BIOTECHDS  
 TI Thermostable \*\*\*variant\*\*\* of parent fungal \*\*\*cutinase\*\*\* useful  
 for dyeing polyester yarn or fabric, comprises substitution of amino acid  
 residues at predetermined positions from the N-terminal amino acid;  
 method is useful improving the functional finish of a polymer of  
 ethyleneglycol and terephthalic acid  
 AU Abo M; Fukuyama S; Svendsen A; Matsui T  
 PA Novo-Nordisk  
 LO Bagsvaerd, Denmark.  
 PI WO 2000034450 15 Jun 2000  
 AI WO 1999-DK678 3 Dec 1999  
 PRAI US 1999-124671 16 Mar 1999; DK 1998-1604 4 Dec 1998  
 DT Patent  
 LA English  
 OS WPI: 2000-482424 [42]

L3 ANSWER 20 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2000:457232 HCAPLUS  
 DN 133:85094  
 TI Protein production in Aspergillus mutant cells that produce decreased  
 levels of toxin  
 IN Christensen, Bjorn Eggert; Mollgaard, Henrik; Kaasgaard, Svend; Lehmbeck,  
 Jan  
 PA Novo Nordisk A/S, Den.  
 SO PCT Int. Appl., 66 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000039322	A1	20000706	WO 1999-DK726	19991222
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,				
CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,				
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,				
MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,				
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,				
BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,				
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,				
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1141371	A1	20011010	EP 1999-960956	19991222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO				
JP 2002533133	T2	20021008	JP 2000-591212	19991222
US 6383781	B1	20020507	US 1999-472364	19991223
US 2002197682	A1	20021226	US 2002-99704	20020315
US 6828137	B2	20041207		
PRAI DK 1998-1726	A	19981223		
DK 1999-745	A	19990527		
US 1999-117396P	P	19990127		
US 1999-139593P	P	19990617		
WO 1999-DK726	W	19991222		
US 1999-472364	A3	19991223		

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 21-30

L3 ANSWER 21 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:441898 HCAPLUS

DN 133:86106

TI Variants of I-S1 and I-S2 sub-groups of subtilisin having an additional amino acid residue in the active site loop region showing greatly improved wash performance

IN Andersen, Vilbourn Kim; Mikkelsen, Frank; Hansen, Kamp Peter; Andersen, Carsten; Norregaard-Madsen, Mads

PA Novo Nordisk A/S, Den.

SO PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 20

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000037599	A1	20000629	WO 1999-DK714	19991220
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2355580	AA	20000629	CA 1999-2355580	19991220
	BR 9916351	A	20010918	BR 1999-16351	19991220
	EP 1141205	A1	20011010	EP 1999-960944	19991220
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002533066	T2	20021008	JP 2000-589656	19991220
	AU 771078	B2	20040311	AU 2000-17728	19991220
PRAI	DK 1998-1674	A	19981218		
	WO 1999-DK714	W	19991220		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 22 OF 59 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN DUPLICATE 6

AN 2000349356 EMBASE

TI Substitutions of surface amino acid residues of cutinase probed by aqueous two-phase partitioning.

AU Berggren K.; Egmond M.R.; Tjerneld F.

CS F. Tjerneld, Department of Biochemistry, Lund University, P.O. Box 124, S-221 00 Lund, Sweden. folke.tjerneld@biokem.lu.se

SO Biochimica et Biophysica Acta - Protein Structure and Molecular Enzymology, (29 Sep 2000) Vol. 1481, No. 2, pp. 317-327.

Refs: 31

ISSN: 0167-4838 CODEN: BBAEDZ

PUI S 0167-4838(00)00175-8

CY Netherlands

DT Journal; Article

FS 029 Clinical Biochemistry

LA English

SL English

ED Entered STN: 20001113

Last Updated on STN: 20001113

L3 ANSWER 23 OF 59 MEDLINE on STN

DUPLICATE 7

AN 2000273759 MEDLINE

DN PubMed ID: 10812184

TI Genetic engineering of the Fusarium solani pisi lipase cutinase for enhanced partitioning in PEG-phosphate aqueous two-phase systems.

AU Bandmann N; Collet E; Leijen J; Uhlen M; Veide A; Nygren P A

CS Department of Biotechnology, Royal Institute of Technology (KTH), Teknikringen 30, SE-100 44, Stockholm, Sweden.

SO Journal of biotechnology, (2000 Apr 28) 79 (2) 161-72.  
 Journal code: 8411927. ISSN: 0168-1656.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200007  
 ED Entered STN: 20000720  
 Last Updated on STN: 20000720  
 Entered Medline: 20000712

L3 ANSWER 24 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:189188 HCAPLUS  
 DN 130:219878  
 TI Protease variants and compositions for use in detergents  
 IN Hansen, Peter Kamp; Bauditz, Peter; Mikkelsen, Frank; Andersen, Kim  
 Vilbour  
 PA Novo Nordisk A/S, Den.  
 SO PCT Int. Appl., 70 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9911770	A1	19990311	WO 1998-DK361	19980819
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2301785	AA	19990311	CA 1998-2301785	19980819
	AU 9890618	A1	19990322	AU 1998-90618	19980819
	EP 1007646	A1	20000614	EP 1998-942501	19980819
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	BR 9811396	A	20000822	BR 1998-11396	19980819
	JP 2001514847	T2	20010918	JP 2000-508781	19980819
	MX 200001890	A	20001109	MX 2000-1890	20000223
PRAI	DK 1997-988	A	19970829		
	WO 1998-DK361	W	19980819		

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 25 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:189187 HCAPLUS  
 DN 130:206698  
 TI Protease variants and compositions for use in detergents  
 IN Hansen, Peter Kamp; Bauditz, Peter; Mikkelsen, Frank; Andersen, Kim  
 Vilbour  
 PA Novo Nordisk A/S, Den.  
 SO PCT Int. Appl., 69 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9911769	A1	19990311	WO 1998-DK360	19980819
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2301767	AA	19990311	CA 1998-2301767	19980819
	AU 9890617	A1	19990322	AU 1998-90617	19980819

EP 1012251 A1 20000628 EP 1998-942500 19980819  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI  
 BR 9811412 A 20000822 BR 1998-11412 19980819  
 JP 2001514846 T2 20010918 JP 2000-508780 19980819  
 MX 200001889 A 20001109 MX 2000-1889 20000223  
 US 6558938 B1 20030506 US 2000-515150 20000229  
 PRAI DK 1997-987 A 19970829  
 WO 1998-DK360 W 19980819  
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 26 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:189186 HCAPLUS  
 DN 130:206697  
 TI Protease variants and compositions for use in detergents  
 IN Hansen, Peter Kamp; Bauditz, Peter; Mitkkelsen, Frank; Andersen, Kim  
 Vilbour  
 PA Novo Nordisk A/S, Den.  
 SO PCT Int. Appl., 67 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911768	A1	19990311	WO 1998-DK359	19980819
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2301851	AA	19990311	CA 1998-2301851	19980819
AU 9887981	A1	19990322	AU 1998-87981	19980819
EP 1009815	A1	20000621	EP 1998-939486	19980819
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
JP 2002515221	T2	20020528	JP 2000-508779	19980819
MX 200001888	A	20001110	MX 2000-1888	20000223
US 6555355	B1	20030429	US 2000-512251	20000224
US 2003176304	A1	20030918	US 2003-336324	20030103
PRAI DK 1997-986	A	19970829		
WO 1998-DK359	W	19980819		
US 2000-512251	A1	20000224		

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 27 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:48790 HCAPLUS  
 DN 130:106943  
 TI Variants of Humicola family 6 endo-1,4-.beta.-glucanases CelA and CelB and their use in cleaning compositions  
 IN Lund, Henrik; Nielsen, Jack Bech; Schulein, Martin; Damgaard, Bo; Andersen, Kim Vilbour  
 PA Novo Nordisk A/S, Den.  
 SO PCT Int. Appl., 271 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9901544	A1	19990114	WO 1998-DK299	19980702
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,				

CM, GA, GN, ML, MR, NE, SN, TD, TG  
 AU 9879088 A1 19990125 AU 1998-79088 19980702  
 EP 1002061 A1 20000524 EP 1998-929249 19980702  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI  
 PRAI DK 1997-813 A 19970704  
 WO 1998-DK299 W 19980702  
 RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 28 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:808055 HCAPLUS  
 DN 132:132883  
 TI Random mutagenesis libraries: optimization and simplification by PCR  
 AU Xu, Hao; Petersen, Evamaria I.; Petersen, Steffen B.; El-Gewely, M. Raafat  
 CS University of Tromso, Tromso, 9037, Norway  
 SO BioTechniques (1999), 27(6), 1102, 1104, 1106, 1108  
 CODEN: BTNQDO; ISSN: 0736-6205  
 PB Eaton Publishing Co.  
 DT Journal  
 LA English  
 RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 29 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1998:324873 HCAPLUS  
 DN 129:2165  
 TI Subtilase variants with modified autoproteolytic stability for use in  
 detergents  
 IN Von der Osten, Claus; Halkier, Torben; Andersen, Carsten; Bauditz, Peter;  
 Hansen, Peter Kamp  
 PA Novo Nordisk A/S, Den.  
 SO PCT Int. Appl., 100 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9820116	A1	19980514	WO 1997-DK500	19971104
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2270180	AA	19980514	CA 1997-2270180	19971104
AU 9747731	A1	19980529	AU 1997-47731	19971104
EP 932667	A1	19990804	EP 1997-910275	19971104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
CN 1235637	A	19991117	CN 1997-199372	19971104
CN 1136310	B	20040128		
BR 9712878	A	20000201	BR 1997-12878	19971104
JP 2001503269	T2	20010313	JP 1998-520961	19971104
US 6300116	B1	20011009	US 1997-963851	19971104
KR 2000053071	A	20000825	KR 1999-703986	19990504
US 2002102702	A1	20020801	US 2001-948080	20010906
PRAI DK 1996-1235	A	19961104		
DK 1996-1240	A	19961105		
DK 1997-284	A	19970314		
US 1997-963851	A3	19971104		
WO 1997-DK500	W	19971104		

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 30 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1998:324872 HCAPLUS  
 DN 129:2164  
 TI Subtilase variants at amino acid positions Tyr-167 and Arg-170 for  
 improved was performance in detergents

IN Hansen, Peter Kamp; Von der Osten, Claus; Bauditz, Peter  
 PA Novo Nordisk A/S, Den.; Hansen, Peter Kamp; Von der Osten, Claus; Bauditz, Peter  
 SO PCT Int. Appl., 81 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9820115	A1	19980514	WO 1997-DK493	19971031
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2270593	AA	19980514	CA 1997-2270593	19971031
	AU 9747726	A1	19980529	AU 1997-47726	19971031
	EP 948610	A1	19991013	EP 1997-910270	19971031
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	CN 1235638	A	19991117	CN 1997-199434	19971031
	BR 9712473	A	19991221	BR 1997-12473	19971031
	JP 2002510191	T2	20020402	JP 1998-520957	19971031
	MX 9904108	A	20000228	MX 1999-4108	19990503
	KR 2000053060	A	20000825	KR 1999-703970	19990504
PRAI	DK 1996-1236	A	19961104		
	DK 1997-784	A	19970702		
	US 1997-52482P	P	19970714		
	DK 1997-1198	A	19971020		
	WO 1997-DK493	W	19971031		

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 31-40

L3 ANSWER 31 OF 59 MEDLINE on STN DUPLICATE 8  
 AN 1998353360 MEDLINE  
 DN PubMed ID: 9687432  
 TI Expression and secretion of defined \*\*\*cutinase\*\*\* \*\*\*variants\*\*\*  
 by Aspergillus awamori.  
 AU van Gemenen I A; Beijersbergen A; van den Hondel C A; Verrips C T  
 CS Department of Biotechnology, Unilever Research, 3133 AT Vlaardingen, The Netherlands.. ingeborg-van.gemenen@unilever.com  
 SO Applied and environmental microbiology, (1998 Aug) 64 (8) 2794-9.  
 Journal code: 7605801. ISSN: 0099-2240.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199809  
 ED Entered STN: 19981006  
 Last Updated on STN: 19981006  
 Entered Medline: 19980924

L3 ANSWER 32 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
 AN 1999-06415 BIOTECHDS  
 TI A second polycaprolactone-depolymerase from Fusarium, a lipase distinct  
 from cutinase;  
 enzyme production by a mutant fungus for biodegradable plastic  
 degradation  
 AU Murphy C A; Cameron J A; Huang S J; \*Vinopal R T  
 CS Univ.Connecticut  
 LO Department of Molecular and Cell Biology, University of Connecticut, 75  
 North Eagleville Road, U-44, Storrs, CT 06269-3044, USA.  
 Email: vinopal@uconnvm.uconn.edu  
 SO Appl.Microbiol.Biotechnol.; (1998) 50, 6, 692-96  
 CODEN: EJABDD ISSN: 0175-7598

DT Journal  
LA English

L3 ANSWER 33 OF 59 MEDLINE on STN DUPLICATE 9  
AN 1998096810 MEDLINE  
DN PubMed ID: 9435084  
TI Impaired secretion of a hydrophobic cutinase by *Saccharomyces cerevisiae* correlates with an increased association with immunoglobulin heavy-chain binding protein (BiP).  
AU Sagt C M; Muller W H; Boonstra J; Verkleij A J; Verrips C T  
CS Department of Molecular Cell Biology, Utrecht University, The Netherlands.. cees@emsaserv.biol.ruu.nl  
SO Applied and environmental microbiology, (1998 Jan) 64 (1) 316-24.  
Journal code: 7605801. ISSN: 0099-2240.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199803  
ED Entered STN: 19980319  
Last Updated on STN: 19980319  
Entered Medline: 19980310

L3 ANSWER 34 OF 59 MEDLINE on STN DUPLICATE 10  
AN 1998177152 MEDLINE  
DN PubMed ID: 9508797  
TI A cutinase-encoding \*\*\*gene\*\*\* from *Phytophthora capsici* isolated by differential-display RT-PCR.  
AU Munoz C I; Bailey A M  
CS Departamento de Ingenieria Genetica de Plantas, CINVESTAV-IPN, Unidad Irapuato, Apartado Postal 629, Irapuato, 36500 Gto, Mexico,.  
SO Current genetics, (1998 Mar) 33 (3) 225-30.  
Journal code: 8004904. ISSN: 0172-8083.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
OS GENBANK-X89452  
EM 199805  
ED Entered STN: 19980529  
Last Updated on STN: 19980529  
Entered Medline: 19980519

L3 ANSWER 35 OF 59 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 11  
AN 1998405880 EMBASE  
TI Protein engineering the surface of enzymes.  
AU Petersen S.B.; Jonson P.H.; Fojan P.; Petersen E.I.; Neves Petersen M.T.; Hansen S.; Ishak R.J.; Hough E.  
CS S.B. Petersen, Biostructure/Protein Engin. Lab., Department of Biotechnology, University of Aalborg, Sohngaardsholmsvej 57, DK-9000 Aalborg, Denmark. Steffen.Peteresen@civil.auc.dk  
SO Journal of Biotechnology, (1998) Vol. 66, No. 1, pp. 11-26.  
Refs: 25  
ISSN: 0168-1656 CODEN: JBITD4  
PUI S 0168-1656(98)00153-9  
CY Netherlands  
DT Journal; Conference Article  
FS 029 Clinical Biochemistry  
037 Drug Literature Index  
004 Microbiology  
LA English  
SL English  
ED Entered STN: 19981217  
Last Updated on STN: 19981217

L3 ANSWER 36 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN DUPLICATE 12  
AN 1997-05736 BIOTECHDS  
TI Preparing polypeptide variants with improved functional properties; lipase enzyme engineering or protein engineering method involving

\*\*\*gene\*\*\* shuffling

AU Okkels J S  
 PA Novo-Nordisk  
 LO Bagsvaerd, Denmark.  
 PI WO 9707206 27 Feb 1997  
 AI WO 1996-DK344 12 Aug 1996  
 PRAI DK 1995-1047 20 Sep 1995; DK 1995-907 11 Aug 1995  
 DT Patent  
 LA English  
 OS WPI: 1997-165290 [15]

L3 ANSWER 37 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1997:259788 HCAPLUS  
 DN 126:234419  
 TI Generation of variant polypeptides by in vivo recombination between linear DNAs  
 IN Okkels, Jens Sigurd  
 PA Novo Nordisk A/s, Den.; Okkels, Jens Sigurd  
 SO PCT Int. Appl., 67 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9707205	A1	19970227	WO 1996-DK343	19960812
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	AU 9666553	A1	19970312	AU 1996-66553	19960812
	EP 843725	A1	19980527	EP 1996-926325	19960812
	EP 843725	B1	20020417		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	CN 1192782	A	19980909	CN 1996-196213	19960812
	CN 1128875	B	20031126		
	JP 11510700	T2	19990921	JP 1996-508841	19960812
	AT 216427	E	20020515	AT 1996-926325	19960812
	EP 1213350	A2	20020612	EP 2002-2150	19960812
	EP 1213350	A3	20021204		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	US 2003148441	A1	20030807	US 2002-188594	20020703
	US 2005048649	A1	20050303	US 2004-738669	20041102
PRAI	DK 1995-907	A	19950811		
	DK 1995-1047	A	19950920		
	EP 1996-926325	A3	19960812		
	WO 1996-DK343	W	19960812		
	US 1998-8363	B1	19980116		
	US 2002-188594	A1	20020703		

L3 ANSWER 38 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1997:240584 HCAPLUS  
 DN 126:222277  
 TI Recombinant lipases with C- and/or N-terminal extensions and their use in detergents  
 IN Fuglsang, Claus Crone; Okkels, Jens Sigurd; Petersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier, Torben; Joergensen, Steen Troels; et al.  
 PA Novo Nordisk A/s, Den.; Fuglsang, Claus Crone; Okkels, Jens Sigurd; Petersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier, Torben  
 SO PCT Int. Appl., 191 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	WO 9704079	A1	19970206	WO 1996-DK322	19960712
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	AU 9664141	A1	19970218	AU 1996-64141	19960712
	EP 839186	A1	19980506	EP 1996-923878	19960712
	EP 839186	B1	20041110		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	CN 1193346	A	19980916	CN 1996-196371	19960712
	JP 2001526523	T2	20011218	JP 1997-506185	19960712
	AT 282087	E	20041115	AT 1996-923878	19960712
	US 6495357	B1	20021217	US 1998-7288	19980114
	US 2003199069	A1	20031023	US 2002-232544	20020830
PRAI	DK 1995-832	A	19950714		
	DK 1995-1013	A	19950913		
	DK 1995-1096	A	19950929		
	DK 1995-1306	A	19951121		
	US 1996-11634P	P	19960214		
	DK 1996-372	A	19960401		
	US 1996-20461P	P	19960507		
	DK 1995-905	A	19950811		
	US 1996-11627P	P	19960214		
	DK 1996-374	A	19960401		
	US 1996-16754P	P	19960507		
	WO 1996-DK322	W	19960712		
	WO 1996-DK341	A2	19960812		
	US 1998-7288	A1	19980114		

L3 ANSWER 39 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:220628 HCAPLUS

DN 126:208956

TI Recombinant lipases with C- and/or N-terminal extensions and their use in detergents

IN Fuglsang, Claus Crone; Okkels, Jens Sigurd; Pertersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier, Torben; Joergensen, Steen Troels; et al.

PA Novo Nordisk A/s, Den.; Fuglsang, Claus Crone; Okkels, Jens Sigurd; Pertersen, Dorte Aaby; Patkar, Shamkant Anant; Thellersen, Marianne; Vind, Jesper; Halkier, Torben

SO PCT Int. Appl., 197 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9704078	A1	19970206	WO 1996-DK321	19960712
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	AU 9664140	A1	19970218	AU 1996-64140	19960712
	CN 1193346	A	19980916	CN 1996-196371	19960712
PRAI	DK 1995-832	A	19950714		
	DK 1995-1013	A	19950913		
	DK 1995-1096	A	19950929		
	DK 1995-1306	A	19951121		
	US 1996-11634P	P	19960214		
	DK 1996-372	A	19960401		
	US 1996-20461P	P	19960507		
	WO 1996-DK321	W	19960712		

L3 ANSWER 40 OF 59 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1998-008848 [01] WPIDS

DNC C1998-003174

TI Detergent composition for cleaning hard surfaces and laundry, etc. -

comprises specific lipolytic enzyme and second lipolytic enzyme giving improved whiteness maintenance to fabrics.

DC D16 D25  
 IN BAECK, A C; KASTURI, C  
 PA (PROC) PROCTER & GAMBLE CO  
 CYC 70  
 PI WO 9743376 A1 19971120 (199801)\* EN 74 C11D003-386  
 RW: AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD  
 SE SZ UG  
 W: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS  
 JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT  
 RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN  
 AU 9658617 A 19971205 (199814) C11D003-386  
 BR 9612611 A 19990720 (199940) C11D003-386  
 CN 1224454 A 19990728 (199948) C11D003-386  
 JP 11511778 W 19991012 (199954) 70 C11D003-386  
 MX 9809589 A1 19990301 (200051) C11D003-386  
 ADT WO 9743376 A1 WO 1996-US7087 19960515; AU 9658617 A AU 1996-58617  
 19960515, WO 1996-US7087 19960515; BR 9612611 A BR 1996-12611 19960515, WO  
 1996-US7087 19960515; CN 1224454 A CN 1996-180379 19960515, WO 1996-US7087  
 19960515; JP 11511778 W WO 1996-US7087 19960515, JP 1997-540823 19960515;  
 MX 9809589 A1 MX 1998-9589 19981116  
 FDT AU 9658617 A Based on WO 9743376; BR 9612611 A Based on WO 9743376; JP  
 11511778 W Based on WO 9743376  
 PRAI WO 1996-US7087 19960515  
 IC ICM C11D003-386  
 ICS C11D007-42

=> d 39, 40 ab

L3 ANSWER 39 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AB The invention relates to a modified enzyme with lipolytic activity recovered from a filamentous fungi or a bacteria having one or more peptide addns. at the N-terminal and/or the C-terminal ends in comparison to the parent enzyme. The peptide addns. significantly improve the washing performance of the lipase. Further, the invention relates to a DNA \*\*\*sequence\*\*\* encoding said modified enzyme, a vector comprising said DNA \*\*\*sequence\*\*\*, a host cell harboring said DNA \*\*\*sequence\*\*\* or said vector, and a process for producing said modified enzyme with lipolytic activity. The lipase variants are useful in detergent compns. Numerous lipase variants contg. substitution mutations and C- and/or N-terminal addns. were prepd. with recombinant *Aspergillus oryzae* or with *Escherichia coli*. The addn. of SPIRR to the N-terminus of *Humicola lanuginosa* lipase increased the wash performance relative to the parent enzyme twofold.

L3 ANSWER 40 OF 59 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 AB WO 9743376 A UPAB: 19980107  
 Detergent composition (I) comprises (a) a specific lipolytic enzyme (E1) which provides improved whiteness maintenance compared with 'LIPOLASE' (RTM) enzyme at equal hydrolytic activity (same LU/litre wash solution), and (b) at least a second lipolytic enzyme (E2).  
 (E1) is preferably a variant of a native enzyme produced by *Humicola lanuginosa* or *Thermomyces lanuginosus*, or by cloning and expressing the \*\*\*gene\*\*\* responsible for said variant into a host organism. Variants of *H. lanuginosa* are strains DSM 4106 and D96L. (E2) is a lipase, cutinase, esterase and/or phospholipase, especially (i) a lipase showing positive immunological cross-reaction with the antibody of the lipase produced by *Pseudomonas fluorescent* IAM 1057, (ii) wild type lipase producible by *P. pseudoalcaligenes* and its M21X and M21L variants or (iii) native lipase derived from *H. lanuginosa* DSM 4106 or a \*\*\*cutinase\*\*\* or \*\*\*cutinase\*\*\* \*\*\*variant\*\*\*.  
 USE - (I) is used for hard surface cleaning, hand or machine dishwashing and hand or machine laundry cleaning.  
 ADVANTAGE - (I) improves fabric whiteness and reduces spotting and filming and/or redeposition on hard surfaces.  
 Dwg.0/0

=> d 41-50

L3 ANSWER 41 OF 59 MEDLINE on STN DUPLICATE 13  
 AN 97155571 MEDLINE  
 DN PubMed ID: 9002270  
 TI Cutinase A of Botrytis cinerea is expressed, but not essential, during penetration of gerbera and tomato.  
 AU van Kan J A; van't Klooster J W; Wagemakers C A; Dees D C; van der Vlugt-Bergmans C J  
 CS Department of Phytopathology, Wageningen Agricultural University, The Netherlands.. jan.vankan@medew.fyto.wau.nl  
 SO Molecular plant-microbe interactions : MPMI, (1997 Jan) 10 (1) 30-8.  
 Journal code: 9107902. ISSN: 0894-0282.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 OS GENBANK-Z69263  
 EM 199702  
 ED Entered STN: 19970306  
 Last Updated on STN: 19990129  
 Entered Medline: 19970226

L3 ANSWER 42 OF 59 MEDLINE on STN DUPLICATE 14  
 AN 96156790 MEDLINE  
 DN PubMed ID: 8593048  
 TI Fusarium polycaprolactone depolymerase is cutinase.  
 AU Murphy C A; Cameron J A; Huang S J; Vinopal R T  
 CS Department of Molecular and Cell Biology, University of Connecticut, Storrs 06269-3044, USA.  
 SO Applied and environmental microbiology, (1996 Feb) 62 (2) 456-60. .  
 Journal code: 7605801. ISSN: 0099-2240.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199604  
 ED Entered STN: 19960418  
 Last Updated on STN: 19960418  
 Entered Medline: 19960401

L3 ANSWER 43 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 AN 97:35499 SCISEARCH  
 GA The Genuine Article (R) Number: WA261  
 TI Dynamics of Fusarium solani cutinase investigated through structural comparison among different crystal forms of its variants  
 AU Longhi S; Nicolas A; Creveld L; Egmond M; Verrips C T; deVlieg J; Martinez C; Cambillau C (Reprint)  
 CS CNRS, UPR9039, LAB CRISTALLOG & CRISTALLISAT MACROMOL BIOL, IFR1, 31 CHEMIN JOSEPH AIGUIER, F-13402 MARSEILLE 20, FRANCE (Reprint); CNRS, UPR9039, LAB CRISTALLOG & CRISTALLISAT MACROMOL BIOL, IFR1, F-13402 MARSEILLE 20, FRANCE; UNILEVER RES LABS VLAARDINGEN, NL-3130 AC VLAARDINGEN, NETHERLANDS  
 CYA FRANCE; NETHERLANDS  
 SO PROTEINS-STRUCTURE FUNCTION AND GENETICS, (DEC 1996) Vol. 26, No. 4, pp. 442-458.  
 Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC 605 THIRD AVE, NEW YORK, NY 10158-0012.  
 ISSN: 0887-3585.  
 DT Article; Journal  
 FS LIFE  
 LA English  
 REC Reference Count: 62  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 44 OF 59 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1995:990655 HCAPLUS  
 DN 124:24865  
 TI A method of preparing a variant of a lipolytic enzyme  
 IN Svendsen, Allan; Clausen, Ib Groth; Okkels, Jens Sigurd; Thellersen, Marianne

PA Novo Nordisk A/S, Den.  
 SO PCT Int. Appl., 85 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9522615	A1	19950824	WO 1995-DK79	19950222
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UG				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2183431	AA	19950824	CA 1995-2183431	19950222
	AU 9518067	A1	19950904	AU 1995-18067	19950222
	EP 746618	A1	19961211	EP 1995-909666	19950222
	EP 746618	B1	20020821		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	CN 1147836	A	19970416	CN 1995-192164	19950222
	CN 1077598	B	20020109		
	JP 09509058	T2	19970916	JP 1995-521525	19950222
	JP 3553958	B2	20040811		
	BR 9506861	A	19970923	BR 1995-6861	19950222
	AT 222604	E	20020915	AT 1995-909666	19950222
	FI 9603266	A	19960821	FI 1996-3266	19960821
	US 5976855	A	19991102	US 1996-701339	19960822
PRAI	DK 1994-217	A	19940222		
	WO 1995-DK79	W	19950222		

L3 ANSWER 45 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 15

AN 95:766763 SCISEARCH  
 GA The Genuine Article (R) Number: TC463  
 TI ROLE OF CUTINASE IN THE INVASION OF PLANTS  
 AU KOLLER W (Reprint); YAO C L; TRIAL F; PARKER D M  
 CS CORNELL UNIV, NEW YORK STATE AGR EXPT STN, DEPT PLANT PATHOL, GENEVA, NY, 14456 (Reprint)  
 CYA USA  
 SO CANADIAN JOURNAL OF BOTANY-REVUE CANADIENNE DE BOTANIQUE, (1995) Vol. 73, Supp. 1, pp. S1109-S1118.  
 ISSN: 0008-4026.  
 DT Article; Journal  
 FS AGRI  
 LA ENGLISH  
 REC Reference Count: 76  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 46 OF 59 LIFESCI COPYRIGHT 2005 CSA on STN  
 AN 96:31199 LIFESCI  
 TI Role of cutinase in the invasion of plants  
 AU Koeller, W.; Yao, Chenglin; Trial, F.; Parker, D.M.  
 CS Dep. Plant Pathol., Cornell Univ., New York State Agric. Exp. Stn., Geneva, NY 14456, USA  
 SO CAN. J. BOT./REV. CAN. BOT., (1995) vol. 73, no. Supplement 1, pp. S1109-S1118.  
 Meeting Info.: 5. International Mycological Congress. Vancouver, BC (Canada). 14-21 Aug 1994.  
 DT Journal  
 TC Conference; General Review  
 FS K; A  
 LA English  
 SL English; French

L3 ANSWER 47 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 AN 95:319244 SCISEARCH  
 GA The Genuine Article (R) Number: QW450  
 TI DIVERSITY OF CUTINASES FROM PLANT-PATHOGENIC FUNGI - DIFFERENT CUTINASES

ARE EXPRESSED DURING SAPROPHYTIC AND PATHOGENIC STAGES OF  
 ALTERNARIA-BRASSICICOLA  
 AU YAO C L; KOLLER W (Reprint)  
 CS CORNELL UNIV, NEW YORK STATE AGR EXPT STN, DEPT PLANT PATHOL, GENEVA, NY,  
 14456 (Reprint); CORNELL UNIV, NEW YORK STATE AGR EXPT STN, DEPT PLANT  
 PATHOL, GENEVA, NY, 14456  
 CYA USA  
 SO MOLECULAR PLANT-MICROBE INTERACTIONS, (JAN/FEB 1995) Vol. 8, No. 1, pp.  
 122-130.  
 ISSN: 0894-0282.  
 DT Article; Journal  
 FS LIFE; AGRI  
 LA ENGLISH  
 REC Reference Count: 46  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 48 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
 AN 1996-01811 BIOTECHDS  
 TI Secretion of wild-type and \*\*\*mutant\*\*\* \*\*\*cutinases\*\*\* by  
 Saccharomyces cerevisiae;  
 Fusarium solani pisi enzyme engineering for improved activity and  
 protein secretion (conference abstract)  
 AU Sagt C M J; Verrips C T  
 CS Univ.Utrecht; Unilever  
 LO Utrecht University, 3584 CH Utrecht, The Netherlands.  
 SO Yeast; (1995) 11, Spec.Iss., S594  
 CODEN: YESTE3 ISSN: 0749-503X  
 17th International Conference on Yeast Genetics and Molecular Biology,  
 Lisbon, Portugal, 10-16 June, 1995.  
 DT Journal  
 LA English

L3 ANSWER 49 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
 DUPLICATE 16  
 AN 1994-12510 BIOTECHDS  
 TI Eukaryotic \*\*\*cutinase\*\*\* \*\*\*variant\*\*\* with improved lipolytic  
 activity;  
 with modified amino acid structure to improve compatibility with  
 anionic surfactant  
 PA Unilever  
 PI WO 9414964 7 Jul 1994  
 AI WO 1993-EP3551 9 Dec 1993  
 PRAI EP 1992-204079 23 Dec 1992  
 DT Patent  
 LA English  
 OS WPI: 1994-234699 [28]

L3 ANSWER 50 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
 DUPLICATE 17  
 AN 1994-11303 BIOTECHDS  
 TI Eukaryotic \*\*\*cutinase\*\*\* \*\*\*variant\*\*\* with increased lipolytic  
 activity;  
 enzyme engineering and expression of plasmid pUR7220 in Saccharomyces,  
 Aspergillus, Hansenula or Kluyveromyces sp. for increased  
 hydrophobicity for use in surfactant composition  
 PA Unilever  
 PI WO 9414963 7 Jul 1994  
 AI WO 1993-EP3550 9 Dec 1993  
 PRAI NL 1992-204025 18 Dec 1992  
 DT Patent  
 LA English  
 OS WPI: 1994-234698 [28]

=> d 51-59

L3 ANSWER 51 OF 59 MEDLINE on STN DUPLICATE 18  
 AN 94348283 MEDLINE  
 DN PubMed ID: 8069105  
 TI Cutinase \*\*\*gene\*\*\* disruption in Fusarium solani f sp pisi decreases  
 its virulence on pea.

AU Rogers L M; Flaishman M A; Kolattukudy P E  
CS Ohio State Biotechnology Center, Ohio State University, Columbus  
43210-1002.  
SO Plant cell, (1994 Jul) 6 (7) 935-45.  
Journal code: 9208688. ISSN: 1040-4651.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199409  
ED Entered STN: 19941006  
Last Updated on STN: 19941006  
Entered Medline: 19940928

L3 ANSWER 52 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
STN DUPLICATE 19

AN 95:52833 SCISEARCH  
GA The Genuine Article (R) Number: QA593  
TI CUTINASE OF NECTRIA-HAEMATOCOCCA (FUSARIUM-SOLANI F SP PISI) IS NOT  
REQUIRED FOR FUNGAL VIRULENCE OR ORGAN SPECIFICITY ON PEA  
AU STAHL D J; THEUERKAUF A; HEITEFUSS R; SCHAFER W (Reprint)  
CS INST GENBIOL FORSCH BERLIN GMBH, IHNESTR 63, D-14195 BERLIN, GERMANY  
(Reprint); INST GENBIOL FORSCH BERLIN GMBH, D-14195 BERLIN, GERMANY; UNIV  
GOTTINGEN, INST PFLANZENPATHOL & PFLANZENSCHUTZ, D-37077 GOTTINGEN,  
GERMANY  
CYA GERMANY  
SO MOLECULAR PLANT-MICROBE INTERACTIONS, (NOV/DEC 1994) Vol. 7, No. 6, pp.  
713-725.  
ISSN: 0894-0282.  
DT Article; Journal  
FS LIFE; AGRI  
LA ENGLISH  
REC Reference Count: 40  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 53 OF 59 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
STN

AN 94:353311 SCISEARCH  
GA The Genuine Article (R) Number: NN881  
TI VARIATION IN CUTINASE, ESTERASE, AND CHROMOSOME PATTERNS IN NOP MUTANTS OF  
A TRANSFORMED PATHOGENIC STRAIN OF PHYTOPHTHORA-CAPSICI  
AU MENA G L (Reprint); MUNOZ C I; GUZMAN P A; BAILEY A M  
CS CINVESTAV IPN, DEPT INGN GENET PLANTAS, APARTADO POSTAL 629, IRAPUATO  
36500, GUANAJUATO, MEXICO (Reprint)  
CYA MEXICO  
SO PHYTOPATHOLOGY, (MAY 1994) Vol. 84, No. 5, pp. 502-508.  
ISSN: 0031-949X.  
DT Article; Journal  
FS AGRI  
LA ENGLISH  
REC Reference Count: 39  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L3 ANSWER 54 OF 59 MEDLINE on STN DUPLICATE 20

AN 93005716 MEDLINE  
DN PubMed ID: 1392588  
TI Cutinase is not required for fungal pathogenicity on pea.  
AU Stahl D J; Schafer W  
CS Institut fur Genbiologische Forschung Berlin GmbH, Germany.  
SO Plant cell, (1992 Jun) 4 (6) 621-9.  
Journal code: 9208688. ISSN: 1040-4651.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199211  
ED Entered STN: 19930122  
Last Updated on STN: 19930122  
Entered Medline: 19921113

L3 ANSWER 55 OF 59 MEDLINE on STN DUPLICATE 21

AN 92212280 MEDLINE  
DN PubMed ID: 1557024  
TI Disruption of a Magnaporthe grisea cutinase \*\*\*gene\*\*\*  
AU Sweigard J A; Chumley F G; Valent B  
CS Central Research and Development, E.I. du Pont de Nemours and Co.,  
Wilmington, DE 19880-0402.  
SO Molecular & general genetics : MGG, (1992 Mar) 232 (2) 183-90.  
Journal code: 0125036. ISSN: 0026-8925.  
CY GERMANY: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199205  
ED Entered STN: 19920515  
Last Updated on STN: 19990129  
Entered Medline: 19920506

L3 ANSWER 56 OF 59 MEDLINE on STN DUPLICATE 22  
AN 91376113 MEDLINE  
DN PubMed ID: 1896470  
TI Identification of a fungal cutinase promoter that is inducible by a plant  
signal via a phosphorylated trans-acting factor.  
AU Bajar A; Podila G K; Kolattukudy P E  
CS Ohio State Biotechnology Center, Ohio State University, Columbus 43210.  
SO Proceedings of the National Academy of Sciences of the United States of  
America, (1991 Sep 15) 88 (18) 8208-12.  
Journal code: 7505876. ISSN: 0027-8424.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199110  
ED Entered STN: 19911108  
Last Updated on STN: 19911108  
Entered Medline: 19911021

L3 ANSWER 57 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
AN 1990-04531 BIOTECHDS  
TI Rice blast as a model for plant pathology;  
Magnaporthe grisea \*\*\*cutinase\*\*\* -deficient \*\*\*mutant\*\*\*  
construction, \*\*\*gene\*\*\* cloning and genetic engineering  
(conference paper)  
AU Valent B  
CS Du-Pont  
LO E.I. du Pont de Nemours and Company, Inc., Central Research and  
Development Department, Experimental Station, E402, Wilmington, DE  
19880-0402, USA.  
SO Phytopathology; (1990) 80, 1, 33-36  
CODEN: PHYTAJ  
DT Journal  
LA English

L3 ANSWER 58 OF 59 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
AN 1989-02922 BIOTECHDS  
TI Cutinase for use in detergent composition produced by culturing  
Pseudomonas putida;  
Fusarium solani, Helminthosporium sativum, Ulocladium consortiale,  
Streptomyces scabies, Colleotrichum capsici, Phytophthora cactorum,  
Botrytis cinerea, etc.  
PA Genencor  
PI WO 8809367 1 Dec 1988  
AI WO 1988-US1844 31 May 1988  
PRAI US 1987-56500 29 May 1987  
DT Patent  
LA English  
OS WPI: 1988-353946 [49]

L3 ANSWER 59 OF 59 MEDLINE on STN DUPLICATE 23  
AN 87056987 MEDLINE  
DN PubMed ID: 3782031  
TI Isolation of a Fusarium solani \*\*\*mutant\*\*\* reduced in

\*\*\*cutinase\*\*\* activity and virulence.  
 AU Dantzig A H; Zuckerman S H; Andonov-Roland M M  
 SO Journal of bacteriology, (1986 Nov) 168 (2) 911-6.  
 Journal code: 2985120R. ISSN: 0021-9193.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198612  
 ED Entered STN: 19900302  
 Last Updated on STN: 19970203  
 Entered Medline: 19861224

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 NTIS, ESBIODBASE, BIOTECHNO, WPIDS' ENTERED AT 19:03:12 ON 08 APR 2005

L1 242 S CUTINASE (5A) (VARIANT OR MUTA? OR SUBSTITUT?)  
 L2 138 S L1 AND (SEQUENCE OR GENE)  
 L3 59 DUP REM L2 (79 DUPLICATES REMOVED)

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